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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,461	08/23/2006	John MacDougall	SNC-134.PCT/US(5008-134-1	9756
55678	7590	07/21/2010		
Miltons IP/p.i. 225 Metcalfe Street Suite 700 Ottawa, ON K2P 1P9 CANADA			EXAMINER CHAMBERS, TROY	
			ART UNIT 3641	PAPER NUMBER
			MAIL DATE 07/21/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/590,461

**Applicant(s)**

MACDOUGALL, JOHN

**Examiner**

Troy Chambers

**Art Unit**

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04/23/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments filed 04/23/2010 have been fully considered but they are not persuasive.
2. In view of applicant's amendments, the objection to the drawings has been withdrawn.
3. In view of applicant's amendments, the rejection of claims under 35 USC 112, 2<sup>nd</sup> has been withdrawn.
4. Applicant argues that Studler discloses 2 gaps while the claims call for only one. However, applicant's use of the transitional phrase "comprising" does not operate to preclude the presence of additional elements.
5. Applicant further argues that the grooves of Studler and Rapp are not tapered (i.e. does not gradually become narrower). However, it would appear that the groove does in fact taper or become narrower as you follow it from the rear end of the groove to its midpoint.

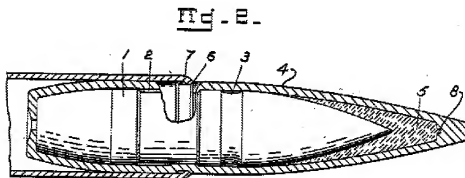
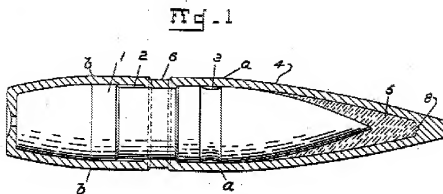
***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

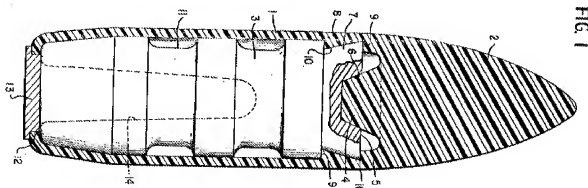
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 8, 10, 11, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US 2322751 issued to Studler.



3. With respect to claim 1, Studler discloses a projectile having an engravable jacket 4; and a central cylindrical core 1 having an annular grooves 2, 3 at its "midsection portion". The grooves 2, 3 discontinue contact between the core 1 and the jacket 4 at those locations. The midsection grooves taper toward both ends of the projectile.

4. With respect to claims 2-4, the gap formed by the tapered grooves 2, 3 fully encircle the core 1 and form a space between said jacket 4 and said core.
5. With respect to claim 5, the midsection tapers and is therefore frustoconical in shape.
6. With respect to claims 10 and 11, the grooves 2, 3 are comprised of empty space and therefore occupied by air.
7. With respect to claim 14, Figures 1 and 2 show the core 1 having an ogival shape. The junction between the forward and the midsection provides a "smooth" transition zone.
8. With respect to claim 15, Figures 1 and 3 appear to show the rear of the core 1 tapering inward.
9. Claims 1-4, 8, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by US 3348486 issued to Rapp.



- 10.
11. With respect to claim 1, Rapp discloses a projectile comprising an engravable jacket 1 having a central core with a "midsection portion" not in continuous contact with

the jacket because of the presence of annular grooves 11. The annular grooves taper toward the forward and rear ends of the projectile.

12. With respect to claims 2-4, the gap formed by the tapered grooves 11 fully encircle the core 3 and form a space between said jacket 1 and said core.

13. With respect to claims 10 and 11, the grooves 11 are comprised of empty space and therefore occupied by air.

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 6, 7, 9, 13, 16 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Studler in view of established case law. Studler discloses a jacketed projectile as discussed above including a midsection with a taper. However, Studler does not disclose the dimensions as claimed by the applicant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the dimensions claimed by the applicant, since it has been held that where the general condition of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

16. Claims 12, 17, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Studler. Studler discloses a jacketed projectile as discussed above.

Studler does not disclose the use of the materials as claimed. However, the use of both steel as a core material for a bullet (see, e.g., US 3553804) and a jacket of gilding material (gilding material has been defined by US 20020020324 as being known in the art as a combination of either 95% copper and 5% zinc or 90% copper and 10% zinc) are well known in the art and the use of either would have been obvious to the skilled artisan. Moreover, the thickness of the jacket is a feature that is well within the knowledge of the skilled artisan.

### ***Conclusion***

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Troy Chambers whose telephone number is 571-272-

6874 and whose email address is [troy.chambers@uspto.gov](mailto:troy.chambers@uspto.gov). The examiner can normally be reached on M-F from 8 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone, can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Troy Chambers/  
Primary Examiner  
Art Unit 3641

/tc/

07/19/2010



